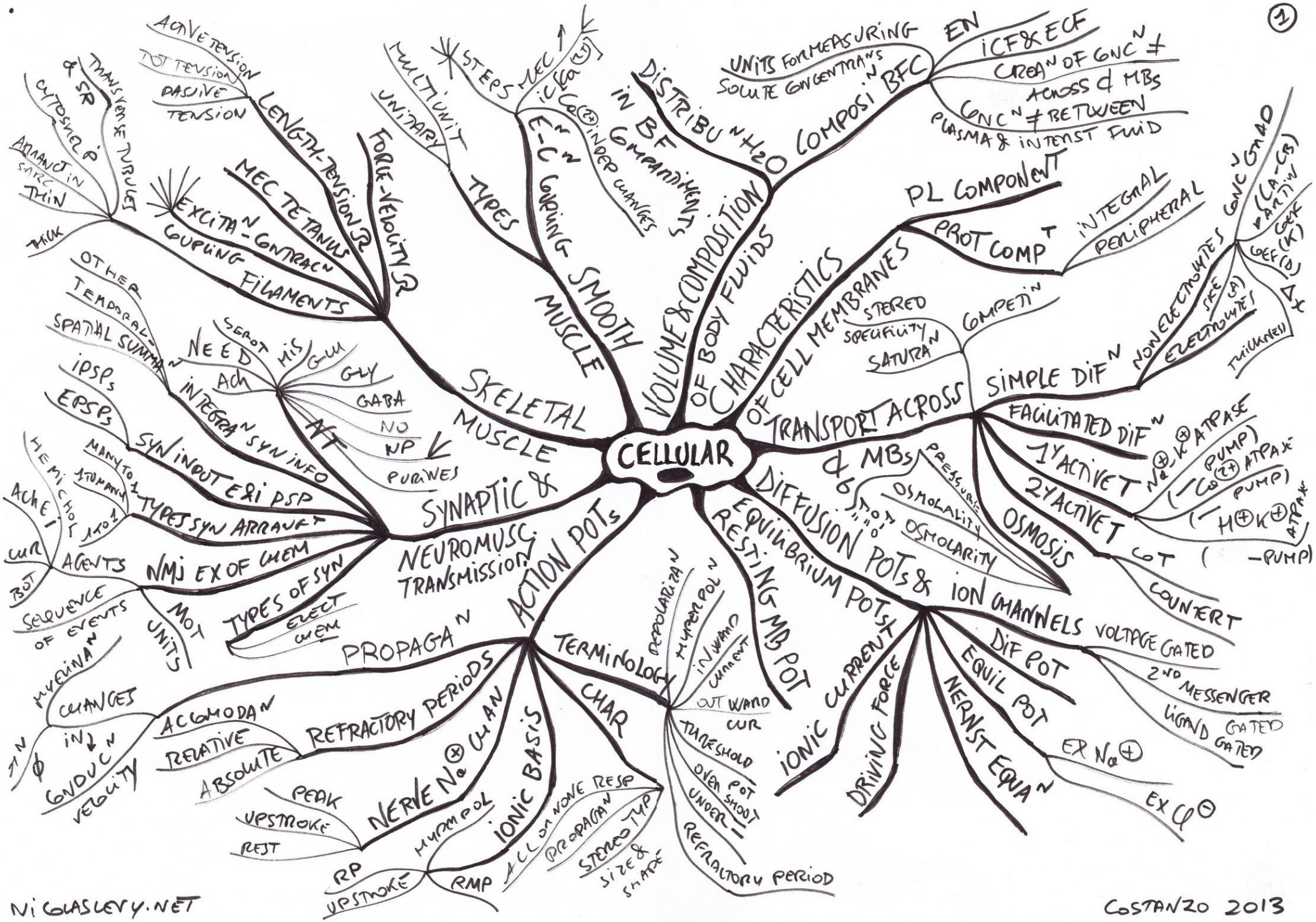

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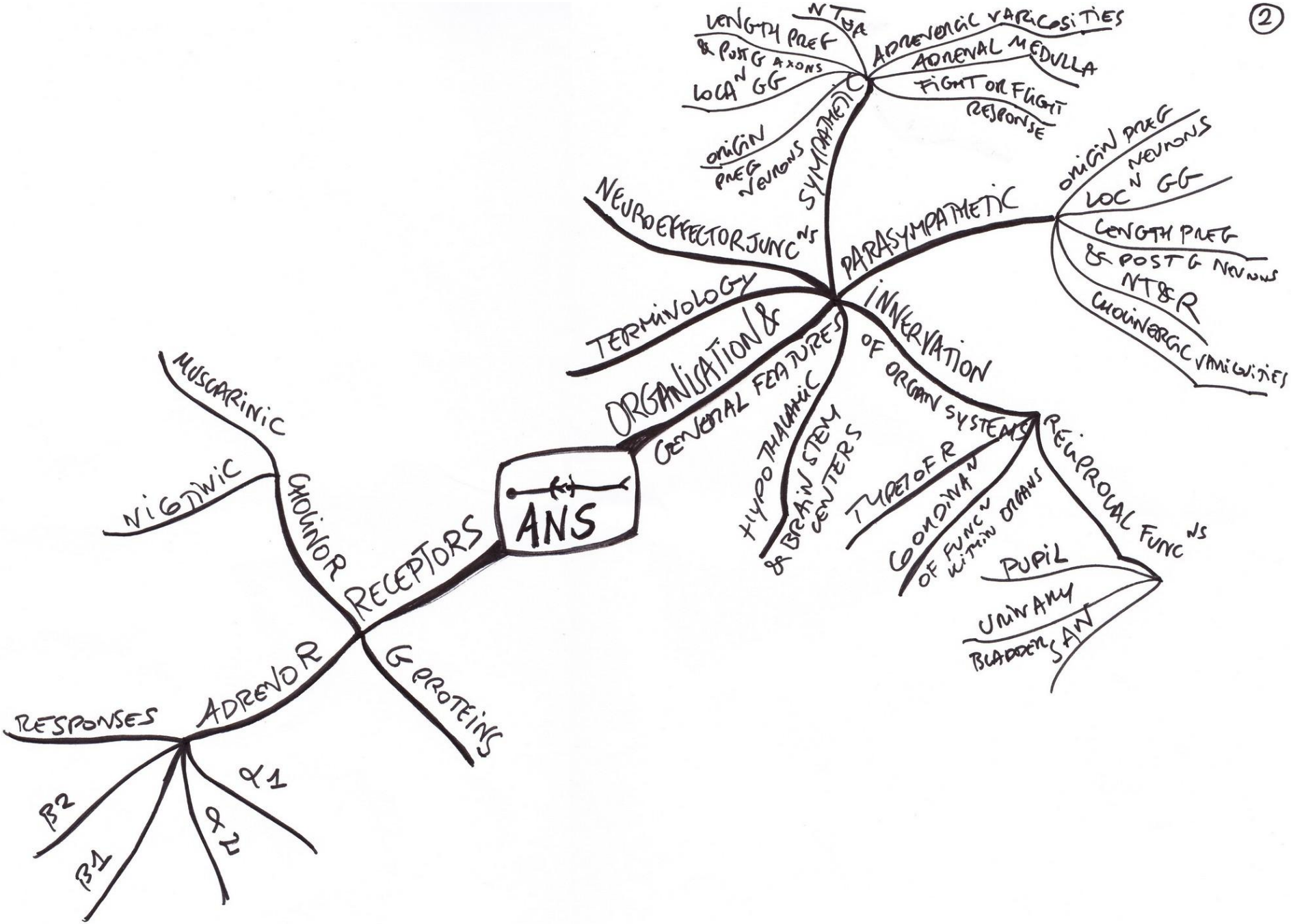
ANS
ORGANISATION & GENERAL FEATURES
TERMINOLOGY
NEUROEFFECTOR JUNC^NS
SYMPATHETIC
LENGTH PREG & POSTG AXONS
LOCA^N GG
NTs
ADRENERGIC VARICOSITIES
ADRENAL MEDULLA
FIGHT OR FLIGHT RESPONSE
ORIGIN PREG NEURONS
PARASYMPATHETIC
ORIGIN PREG NEURONS
LOC^N GG
LENGTH PREG & POSTG NEURONS
NT & R
CHOLINERGIC VARICOSITIES
INNERVATION OF ORGAN SYSTEMS
HYPOTHALAMIC & BRAIN STEM CENTERS
TYPES OF R
COORDINA^N OF FUNC^N WITHIN ORGANS
RECIPROCAL FUNC^NS
PUPIL
URINARY BLADDER
SAN
RECEPTORS
MUSCARINIC
NICOTINIC
CHOLINOR
ADRENOR
RESPONSES
β2
β1
α2
α1
G PROTEINS

NEURO-PHYSIOLOGY

- CSF ORGANISATN
  - BRAIN STEM
    - MIDBRAIN
    - PONS
    - MEDULLA
  - CEREBELLUM
  - SPINAL CORD
  - THALAMUS & HYPOTHAL
  - CEREBRAL HEMISPHERES
    - CORTEX
    - BASAL GANGLIA
    - HIPPOCAMPUS & AMYGDALA
    - SYNAPTIC RELAYS
    - TOPOGRAPHIC ORGN
    - DECUSSATNS
    - TYPE NERVE FIBERS
- GENERAL FEATURES
- SENSORY & MOTOR SYST
- SENSORY PATHWAYS
  - 1st order
  - 2
  - 3
  - 4
- RECEPTORS
  - TYPES
    - SENS TRANSDUCN & RECEPTIVE FIELDS
    - RECEPTOR POT
    - DIFF GRAN
    - SENSORY CODING
      - ADAPTATN
        - TONIC
        - PHASIC
      - DURATN
      - PATTERN
      - IMPORTANCE
      - MAPS
      - INTENSITY
      - THRES
      - MODALITY
      - CODE
- SENSORY SYSTEMS
  - SOMATOSENSORY SYSTEM & PAIN
    - TYPES R
    - PATHWAYS
      - MECHANOR
        - PACINIAN CORP
        - MEISS
        - HAIR
        - FOL
        - PUP CORP
        - MERKEL
        - NOC.
        - THERMO
        - FR & TACTILE DISCS
      - DORSAL COLUMN SYSTEM
      - ANTEROLATS
        - LAYERS
        - STR PHOTOR STEPS
    - VISION
      - STR EYE
      - PHOTORECEPN
      - OPT PATHWAYS
        - CHIASM
        - TRACT
        - GENICULATE
        - VISUAL RECEPTIVE FIELDS
        - ON
        - OFF
        - PHOTOR HOM
        - ABPA
        - AMAC
        - VIS CORTEX
        - LGN
        - G
    - AUDITION
      - STR EAR
      - TRANSDUCN
      - ENCODING OF SOUND
      - STRS INTN
      - COCHLEA & ORGAN CORTI
    - VESTIBULAR SYSTEM
      - ORGAN
      - VEST OCUL REF PATHWAYS
      - TESTING
      - EPIT & R
      - TRANSDUCN
      - ENCODING OLFACTORY OLF STIMULI
      - OTOLITH ORGANS
      - SEMI CIRCULAR CANALS
    - OLFACTION
      - PATHWAYS
      - TRANSDUCN
      - BUDS & R
      - ENCODING TASTE
      - PATHWAYS
      - TASTE
      - FOL - CIRCUM PAP
      - TASTER
      - BASAL
      - SUPPORTING
      - FUNC
      - TRANSDUCN
- HIGHER FUNCTIONS
  - FUNCNS
  - FORMATN
  - LEARNING & MEMORY
  - EEG
- MOTOR SYSTEMS
  - MOTOR CORTEX
  - BASAL GANGLIA
  - CEREBELLUM
  - CONTROL POSTURE & MOVEMENT BY BS
  - SC REFLEXES
    - FLEXOR-WITHDRAWAL
    - GOLGI TENDON
    - STRETCH REFLEX
    - FUNCN
  - MUSCLE SPINDLES
    - INNERVATN
    - INTRAFUSAL M FIBERS
  - MOTOR UNITS
    - TYPES OF M FIBERS
    - TYPES OF MOTONEURONS
  - ORGN MOT FUNCN BY SC
- CORTEX
  - LAYERS OF CORTEX
    - MOL
    - PYRAM
    - GRAN
  - INPUT TO CORTEX
    - CLIMBING
    - MOSSY
    - INTERNEURONS
  - OUTPUT CORTEX
  - DISORDERS
  - DISORDERS
  - PREMOT & SMC
  - 1Y(4)
  - MED
  - PONTOREST
  - RU-S
  - T
  - SUPERIOR
  - INFERIOR
  - T

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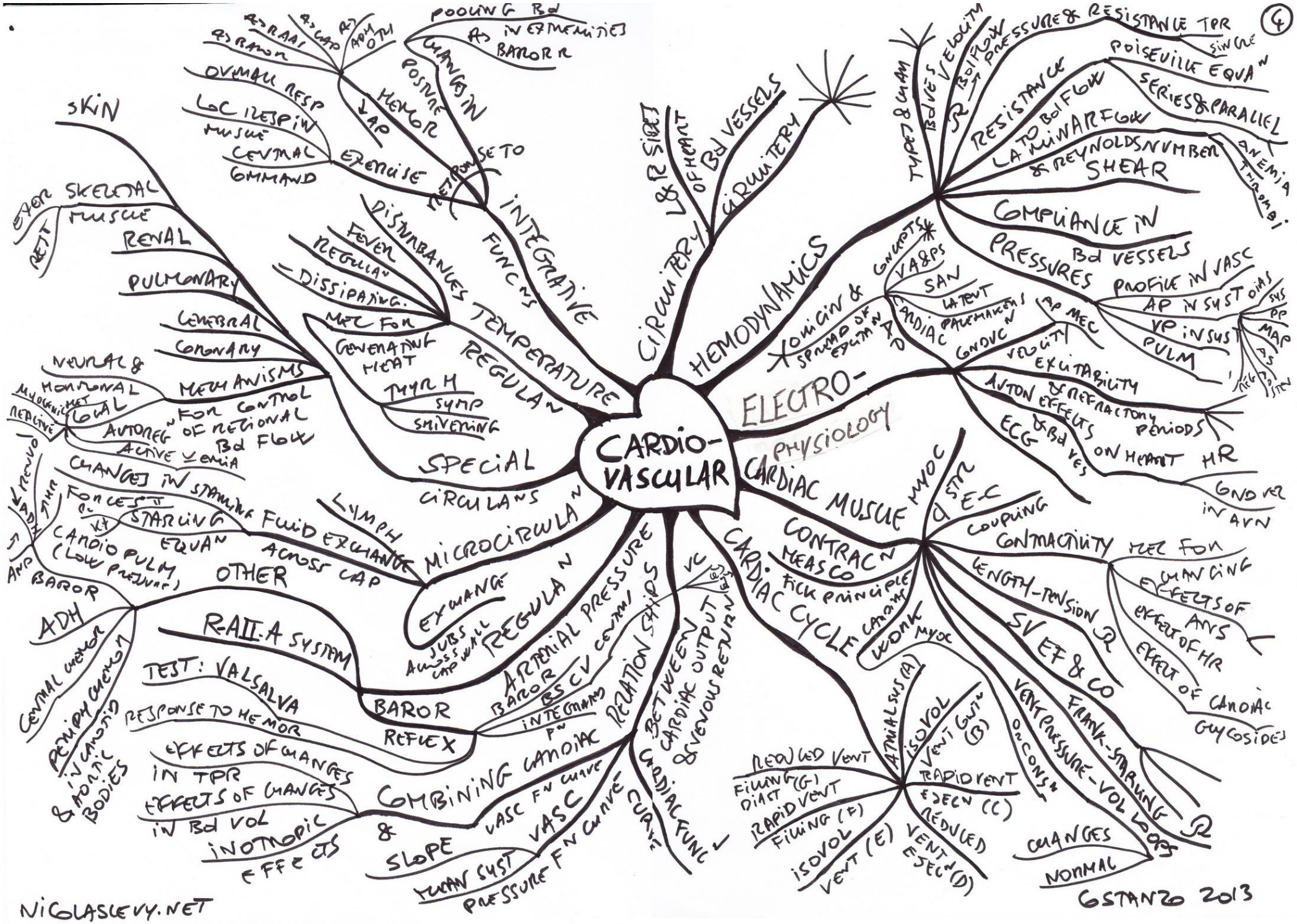
CARDIO-VASCULAR
4
INTEGRATIVE FUNCNS
EXERCISE
RESPONSE TO
LOC RESP IN MUSCLE
OVERALL RESP
CENTRAL COMMAND
CHANGES IN POSTURE
HEMOR
↓AP
POOLING Bd IN EXTREMITIES
BAROR R
TEMPERATURE REGULAN
DISTURBANCES
FEVER
REGULAN
DISSIPATING
MEC FOR GENERATING HEAT
THYR H
SYMP
SHIVERING
SPECIAL CIRCULANS
SKIN
SKELETAL MUSCLE
EXER
REST
RENAL
PULMONARY
CEREBRAL
CORONARY
MECHANISMS FOR CONTROL OF REGIONAL Bd FLOW
NEURAL & HORMONAL
MYOGENIC
METABOLIC
AUTOREG
ACTIVE ↓EMIA
CHANGES IN STANDING
FORCES
STARLING EQUAN
CARDIO PULM (LOW PRESSURE)
OTHER
ADH
CENTRAL CHEMOR
PERIPH CHEMOR
INCLUDING AORTIC BODIES
BAROR
R-AII-A SYSTEM
TEST: VALSALVA
RESPONSE TO HEMOR
BAROR REFLEX
EFFECTS OF CHANGES IN TPR
EFFECTS OF CHANGES IN Bd VOL
INOTROPIC EFFECTS
COMBINING CARDIAC & VASC
SLOPE
VASC
VASC FN CURVE
HUMAN SYST PRESSURE FN CURVE
CARDIAC FUNC CURVE
RELATION SHIPS BETWEEN CARDIAC OUTPUT & VENOUS RETURN
VC
BS CV CENTRI
BAROR
INTEGRAMS FN
ARTERIAL PRESSURE REGULAN
EXCHANGE
JUBS ACROSS CAPILLARY
LYMPH
MICROCIRCULAN
FLUID EXCHANGE ACROSS CAP
CIRCULATORY
L & R SIDES OF HEART
Bd VESSELS
CIRCUITRY
HEMODYNAMICS
TYPES & CHAM Bd VESS
VELOCITY
Bd FLOW
PRESSURE & RESISTANCE TPR
SINGLE
POISEUVILLE EQUAN
SERIES & PARALLEL
RESISTANCE
LAMINAR FLOW
TO Bd FLOW
& REYNOLDS NUMBER
SHEAR
ANEMIA
THROMBI
COMPLIANCE IN Bd VESSELS
PRESSURES
PROFILE IN VASC
AP IN SYST
SYS
DIAS
PP
MAP
AS
REG
STEN
VP IN SYS
PULM
AP MEC
CONCEPTS
VA & PS
SAN
LATENT PACEMAKERS
CARDIAC OUTPUT
SPREAD OF EXCITATN
CONDUCTN
VELOCITY
EXCITABILITY & REFRACTORY PERIODS
AVTON EFFECTS ON HEART
ECG & Bd VES
HR
CONDUCTN IN AVN
ELECTRO-PHYSIOLOGY
CARDIAC MUSCLE MYOC
SYSTM
E-C COUPLING
CONTRACTILITY
MEC FOR CHANGING EFFECTS OF ANS
EFFECT OF HR
EFFECT OF CARDIAC GLYCOSIDES
CONTRACN MEASCO
FICK PRINCIPLE
CARDIAC CYCLE
WORK
MYOC
LENGTH-TENSION R
SV EF & CO
FRANK-STARLING R
VENTPRESSURE-VOL LOOPS
ON CONST
CHANGES
NORMAL
ATRIAL SYS (A)
ISOVOL VENT CONTN (B)
RAPID VENT EJECN (C)
REDUCED VENT EJECN (D)
ISOVOL VENT (E)
REDUCED VENT FILLING (G) DIAST
RAPID VENT FILLING (F)
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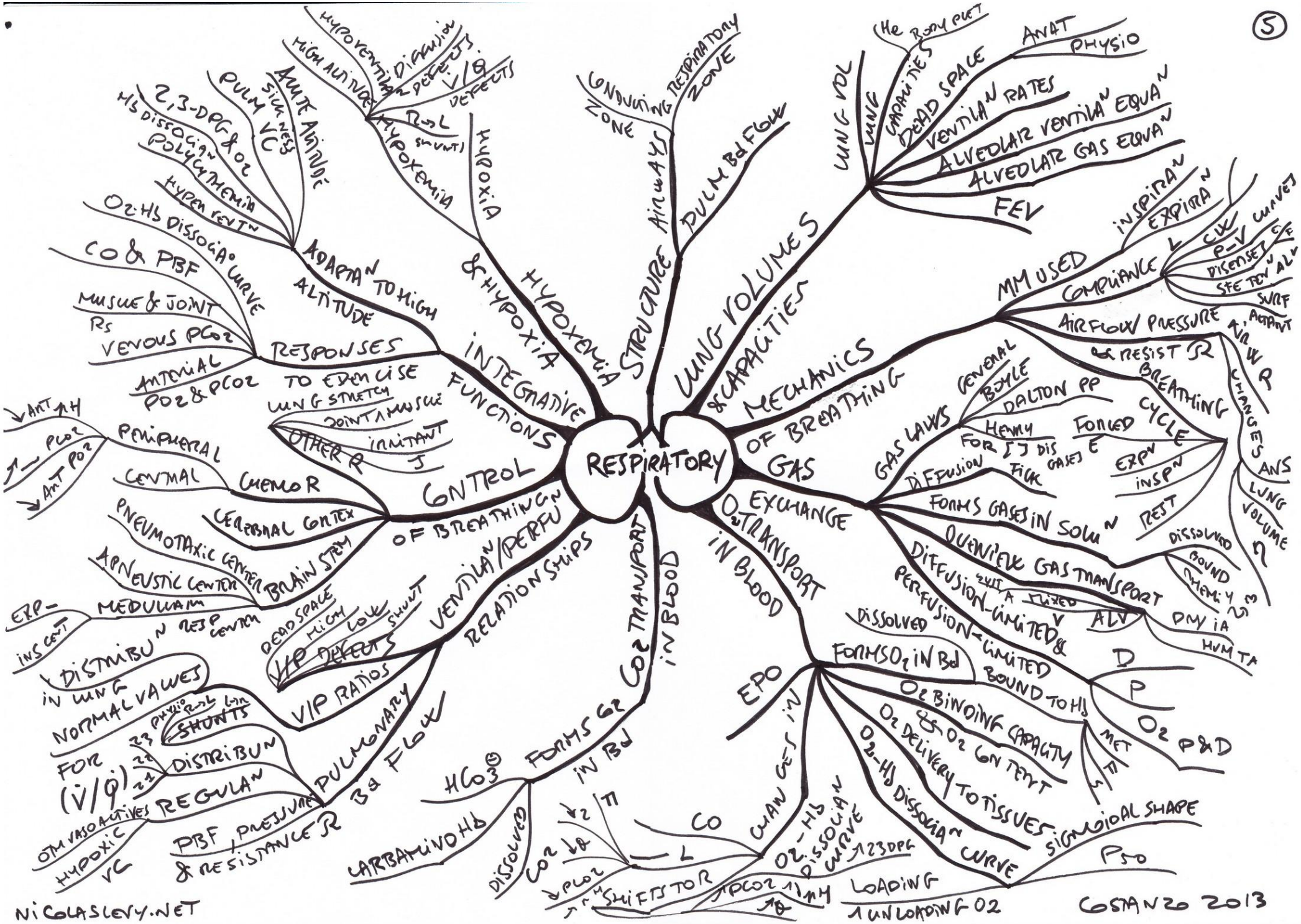
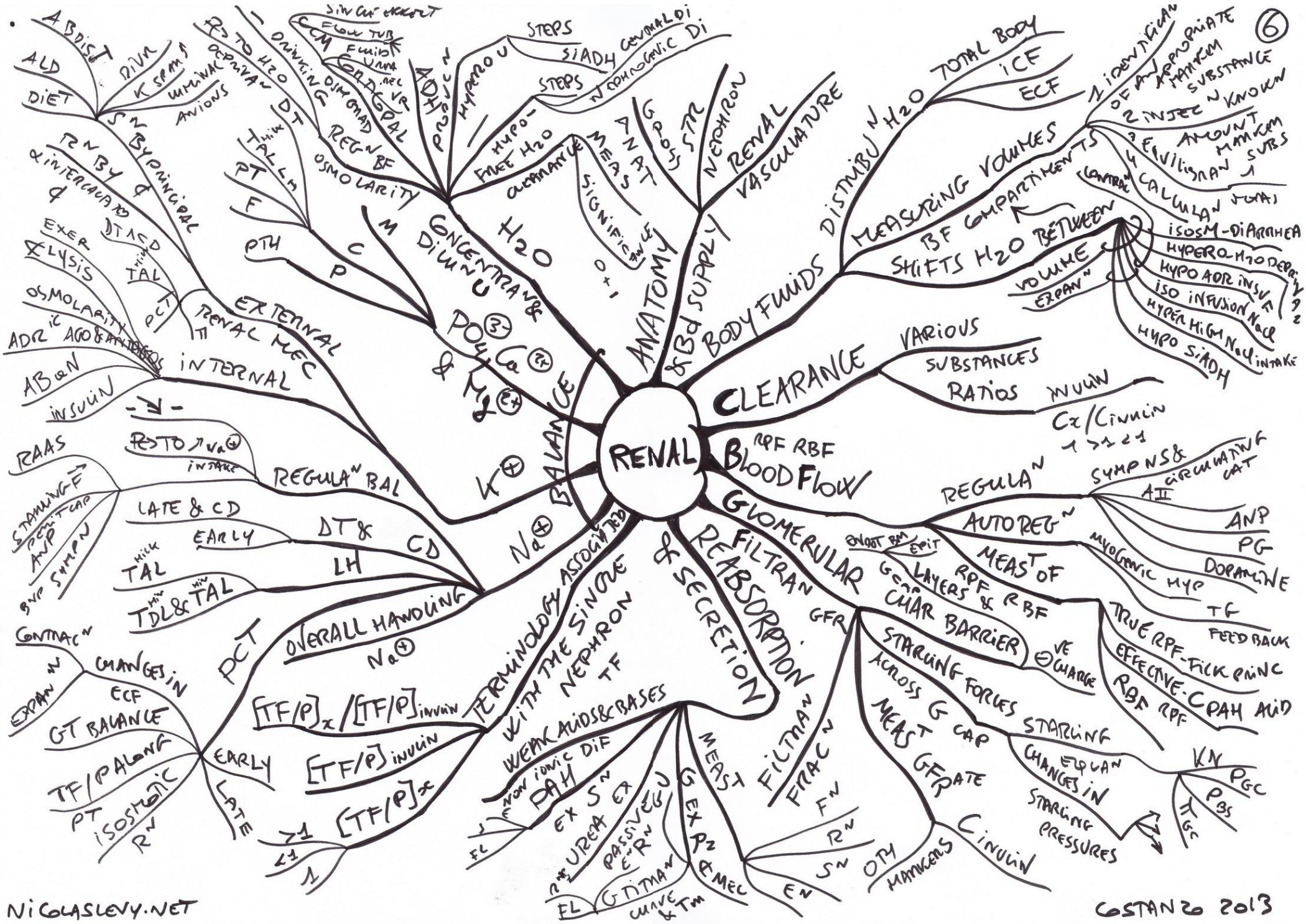
GSTANZO 2013


RESPIRATORY
HYPOXIA & HYPOXEMIA
STRUCTURE
AIRWAYS
CONDUCTING ZONE
RESPIRATORY ZONE
PULM BLD FLOW
LUNG VOLUMES & CAPACITIES
LUNG VOL
LUNG CAPACITIES
He
BODY PLET
DEAD SPACE
ANAT
PHYSIO
VENTILAN RATES
ALVEOLAR VENTILAN EQUAN
ALVEOLAR GAS EQUAN
FEV
MECHANICS OF BREATHING
MM USED
INSPIRAN
EXPIRAN
COMPLIANCE
L
CLW
P-V CURVES
DISENSET
SFE TEN ALV
SURF
ACTIVNT
AIRFLOW PRESSURE
AIRWAY RESIST R
BREATHING CYCLE
CHANGES ANS LUNG VOLUME
GAS LAWS
GENERAL
BOYLE
DALTON PP
HENRY
FOR ∑J DIS GASES
FORCED
E
EXPN
INSPN
REST
DIFFUSION
FICK
FORMS GASES IN SOLN
QUENCHE GAS TRANSPORT
DISSOLVED
BOUND
CHEMICALLY
DIFFUSION-LIMITED
PERFUSION-LIMITED
FIXED
V
ALV
DMY IA
HUM TA
GAS EXCHANGE & TRANSPORT IN BLOOD
FORMS SO2 IN BLD
DISSOLVED
BOUND TO Hb
O2 BINDING CAPACITY
O2 CONTENT
O2 DELIVERY TO TISSUES
O2-Hb DISSOCIAN CURVE
SIGMOIDAL SHAPE
P50
MET
π
D
P
O2 P&D
EPO
CHAN GES IN
CO
L
O2-Hb DISSOCIAN CURVE
↑23DPG
↑PCO2
↑H
↑T
LOADING
↑ UNLOADING O2
↓2
π
↓PCO2
↑H
SHIFTS TO R
CO2 ↓θ
DISSOLVED
FORMS CO2 IN BLD
HCO3⊖
CARBAMINO Hb
CO2 TRANSPORT IN BLOOD
VENTILAN/PERFU RELATIONSHIPS
DEAD SPACE
HIGH
LOW
SHUNT
V/P DEFECTS
V/P RATIOS
PULMONARY BD FLOW
PBF PRESSURE & RESISTANCE R
REGULAN
OTHER VASOACTIVES
HYPOXIC VC
DISTRIBUN
FOR (V̇/Q̇)
23
22
21
PHYSIO R→L
L→R
SHUNTS
DISTRIBUN NORMAL VALUES IN LUNG
CONTROL OF BREATHING
BRAIN STEM
MEDULLA
RESP CENTER
EXP
INSP CENT
APNEUSTIC CENTER
PNEUMOTAXIC CENTER
CEREBRAL CORTEX
CHEMO R
CENTRAL
PERIPHERAL
↓ANT ↑H
↑ PCO2
↓ANT PO2
OTHER R
LUNG STRETCH
JOINT & MUSCLE
IRRITANT
J
RESPONSES TO EXERCISE
ARTERIAL PO2 & PCO2
VENOUS PCO2
MUSCLE & JOINT Rs
ADAPTAN TO HIGH ALTITUDE
CO & PBF
O2-Hb DISSOCIA° CURVE
HYPERVENTN
POLYCYTHEMIA
2,3-DPG & O2
Hb DISSOCIAN
PULM VC
SICKNESS
ACUTE ALTITUDE
HIGH ALTITUDE
HYPOVENTIL
DIFFUSION
R→L SHUNT
V/Q DEFECTS
HYPOXEMIA
INTEGRATIVE FUNCTIONS
NICOLASLEVY.NET
COSTANZO 2013


RENAL
ANATOMY & BLOOD SUPPLY
RENAL VASCULATURE
NEPHRON
GROSS STR
DNAT
MEAS
SIGNIFICANCE
0 + 1
BODY FLUIDS
DISTRIBU^N H2O
TOTAL BODY
ICF
ECF
MEASURING VOLUMES
BF COMPARTMENTS
SHIFTS H2O BETWEEN
VOLUME EXPAN^N
ISOSM-DIARRHEA
HYPERO-H2O DEPRIV
HYPO ADR INSUF
ISO INFUSION NaCl
HYPER HIGH NaCl INTAKE
HYPO SIADH
CALCULATION
CLEARANCE
VARIOUS SUBSTANCES
RATIOS
INULIN
Cx/Cinulin
BLOOD FLOW
RPF RBF
REGULA^N
SYMP NS & CIRCULATING CAT
AII
ANP
PG
DOPAMINE
MYOGENIC MYP
TG
FEED BACK
AUTOREG^N
MEAS^T OF RPF & RBF
GLOMERULAR FILTRAN
GFR
GEN CHAR BARRIER
LAYERS & RBF
STARLING FORCES
ACROSS G CAP
MEAS^T GFR
ATE
CINULIN
MANOEUVRES
OTH
EN
SN
FN
RN
FILTRAN FRAC^N
MEAS^T
EXPAN
PMEC
GLOMERULAR
PASSIVE
UREA
EX S^N
PAH
NON IONIC DIF
FL
TERMINOLOGY ASSOCIATED WITH THE SINGLE NEPHRON
WEAK ACIDS & BASES
TF
[TF/P]x
[TF/P]inulin
[TF/P]x/[TF/P]inulin
>1
<1
1
EARLY
LATE
PCT
OVERALL HANDLING Na+
TAL
TDL & TAL
LH
DT & CD
LATE & CD
EARLY
REGULA^N BAL
RAAS
STIMULATE
PENETRATE
ANP
BNP SUMPN
K+
Na+
BALANCE
Ca2+
Mg2+
PO4 3-
CONCENTRATION & DILUTION
H2O
HYPO-FREE H2O
ALDOSTERONE
PRODUCTION
HYPERO
STEPS
SIADH
NEPHROGENIC DI
DIURETICS
OSMOTIC DIURESIS
REG^N BF
OSMOLARITY
PT
F
PTH
C
P
M
DT
TALLA
EXTERNAL
RENAL MEC
INTERNAL
ADR IC AGO & ANTAGONISTS
AB & N
INSULIN
RENAL & INTERCALATED
PRINCIPAL
SN
DIET
ALD
ABDIST
DIVR
K SPARING
UNIVAC
ANIONS
EXER
LYSIS
OSMOLARITY
TAL
PCT
DT ASD
CONTRACTION
EXPAN^N
ECF
GT BALANCE
TF/P ALONG
PT
ISOSMOTIC
R^N
EARLY
LATE
>1
<1
1
[TF/P]x
[TF/P]inulin
[TF/P]x/[TF/P]inulin

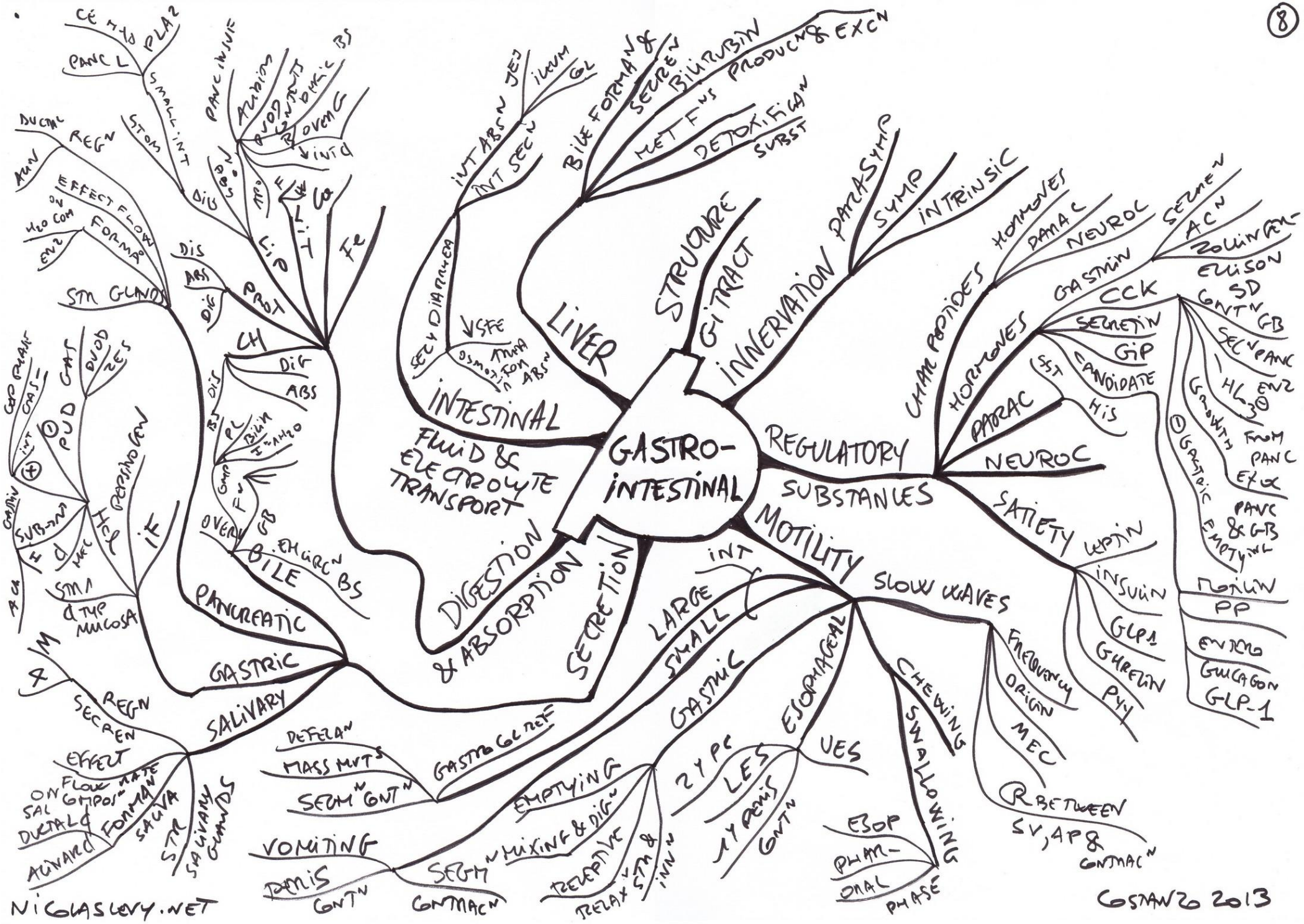
ACID-BASE

DISORDERS

- ↑H of BODY FLUIDS
- ACID PRODUC^N IN THE BODY
  - CO_2
  - FIXED
- BUFFERING
  - PRINCIPLES
  - HENDERSON-HASSELBACH EQUA^N
  - TITRA^N CURVES
  - IC BUFFERS
    - PROTEINS
    - ORGANIC PHOSPHATES
  - ECF
    - HCO_3^-/CO_2
    - $HPO_4^{2-}/H_2PO_4^-$
- ALKALOSIS
  - LOSS FIXED ACID
  - BUF^ING
  - RESP COMP^N
  - REN COR^N
- ACIDOSIS
  - RETO COR BUF
  - RESP C
  - REN C
- RESPIRATORY ALKALOSIS
  - LOSS CO_2
  - BUF
  - RESP C
  - REN C
- METABOLIC ACIDOSIS
  - GAIN FIXED ACID
    - H^+
  - BUFING
  - RESP COMP^N
  - REN COR^N
- RULES FOR COMPENSATORY RESPONSES
- RESPIRATORY DISORDERS
- METABOLIC DISORDERS
- A-B MAP
- ANION GAP OF PLASMA
  - N
  - ↑

RENAL MECHANISMS IN A-B BALANCE

- COMPARISON OF TITRABLE A & NH_4^+ EXC^N
  - N
  - DIAB KETO ACIDOSIS
  - CRF
- EXCRE^N OF H^+ AS NH_4^+
  - EFFECT OF PLASMA K^+
  - EFFECT OF ACIDOSIS ON NH_3 SYNT
  - EFFECTS OF URINARY pH ON EXC^N NH_4^+
  - CD
  - TAL
  - PT
  - MEC
- EXCRE^N OF H^+ AS TITRATABLE ACID
  - ↑K OF URINARY BUFFERS
  - AMOUNT OF URINARY BUFFER
  - MEC
- REABS^N OF FILTERED HCO_3^-
  - EFFECT OF PCO_2
  - EFFECT OF ECF FLUID VOL
  - MEC IN PT
  - EFFECT OF FILTERED LOAD OF HCO_3^-



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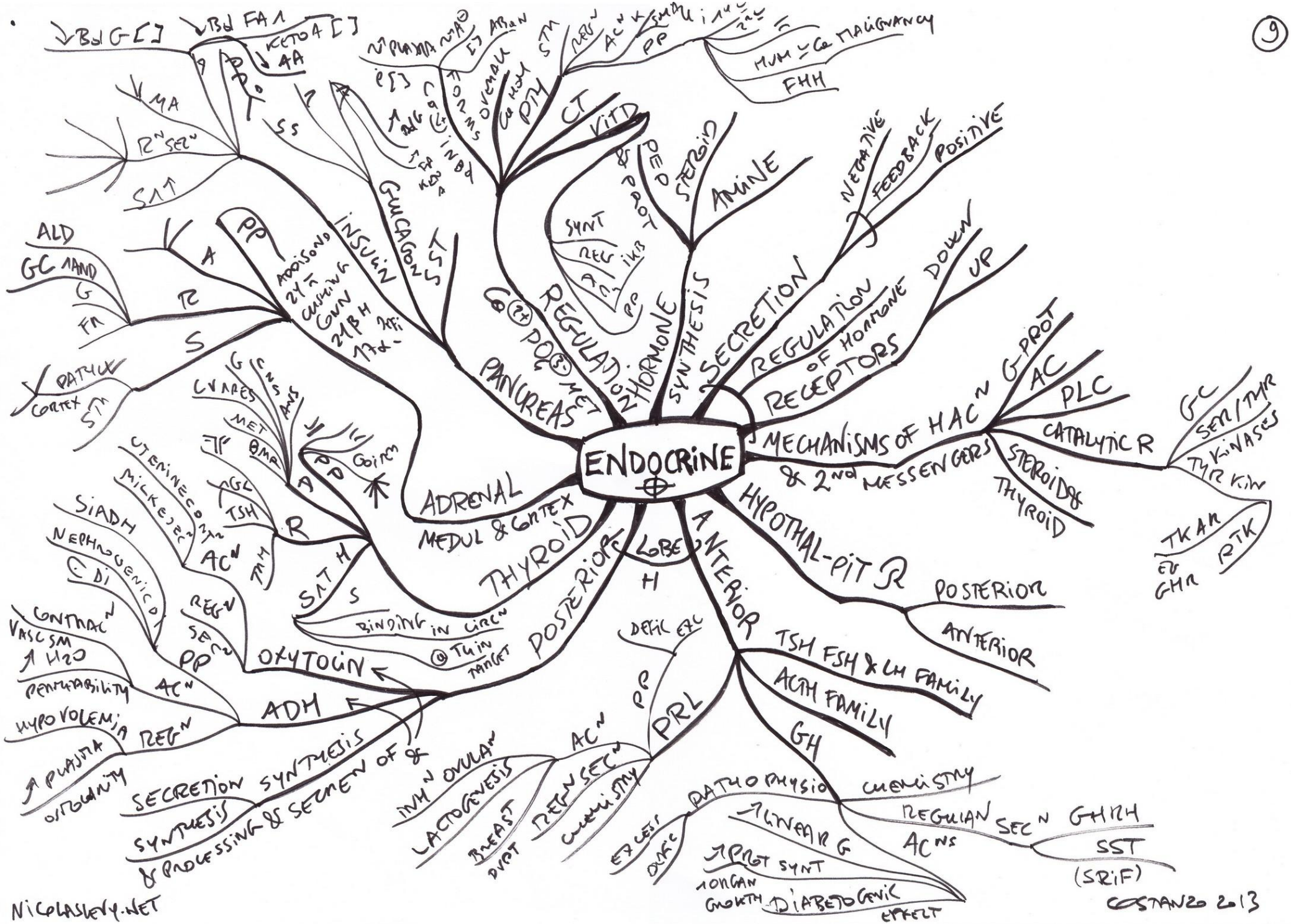
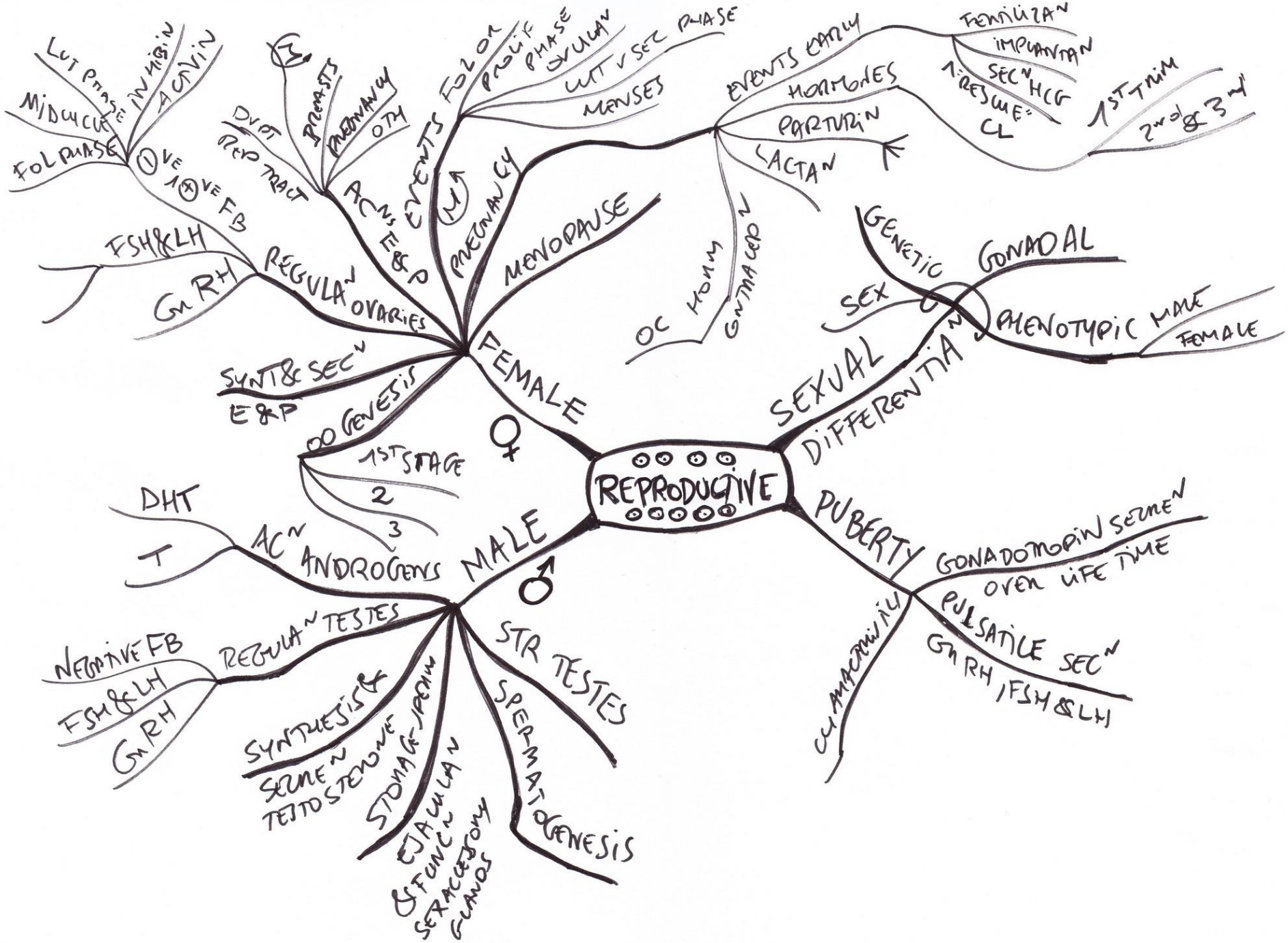

ENDOCRINE
PANCREAS
ADRENAL
MEDUL & CORTEX
THYROID
POSTERIOR
LOBE
ANTERIOR
HYPOTHAL-PIT R
POSTERIOR
ANTERIOR
TSH FSH & LH FAMILY
ACTH FAMILY
GH
PRL
OXYTOCIN
ADH
INSULIN
GLUCAGON
SST
REGULATION
HORMONE
SYNTHESIS
SECRETION
REGULATION OF HORMONE RECEPTORS
NEGATIVE
FEEDBACK
POSITIVE
DOWN
UP
AMINE
STEROID
MECHANISMS OF HAC^N
& 2ND MESSENGERS
G PROT
AC
PLC
CATALYTIC R
STEROIDS
THYROID
GC
SER/THR KINASES
TYR KIN
TKAR
RTK
GHR
ALD
GC
MAND
G
FR
R
S
A
PP
ADDISON'S
21-H
CUSHING
GWN
21BH
17α-
PATYLK
CORTEX
STM
CV RECS
CNS
ANS
MET
θMA
GOINCN
UTERINE CONTRAC^N
MILK EJECT
SIADH
NEPHROGENIC
C DI
TSH
ACTH
AC^N
TMM
SAT H
S
BINDING IN CIRC^N
TH IN TARGET
CONTRAC^N
VASC SM
↑ H2O
PERMEABILITY
HYPOVOLEMIA
↑ PLASMA
OSMOLARITY
REG^N
SE
PP
AC^N
SECRETION
SYNTHESIS
SYNTHESIS & PROCESSING & SECRETN OF
INH^N OVULAR
LACTOGENESIS
BREAST
DVPT
REG^N SEC^N
CHEMISTRY
AC^N
PP
DEFIC ETC
EXCESS
ONFC
PATHOPHYSIO
CHEMISTRY
REGULAN
SEC^N
GHRH
SST
(SRIF)
AC^NS
↑ LINEAR G
↑ PROT SYNT
↑ ORGAN GROWTH
DIABETOGENIC
EFFECT
NICHLASLEY.NET
COSTANZO 2013


REPRODUCTIVE
FEMALE
♀
REGULAN OVARIES
FSH&LH
GnRH
LUT PHASE INHIBIN
ACTIVIN
MIDCYCLE
FOL PHASE
1 VE
A VE FB
DUCT REP TRACT
BREASTS
PREGNANCY
OTH
ACN E&P
EVENTS FOLLOW
PROLIF PHASE
OVULAN
LUT V SEC PHASE
MENSES
PREGNANCY
MENOPAUSE
OC HORM
CONTRACEPN
EVENTS EARLY
HORMONES
PARTURIN
LACTAN
FERTILIZAN
IMPLANTAN
SECN HCG
1:RESME CL
1ST TRIM
2nd & 3rd
OOGENESIS
SYNT& SECN E&P
1ST STAGE
2
3
SEXUAL DIFFERENTIAN
GENETIC
GONADAL
SEX
PHENOTYPIC MALE
FEMALE
MALE
♂
ACN ANDROGENS
DHT
T
REGULAN TESTES
NEGATIVE FB
FSH&LH
GnRH
STR TESTES
SPERMATOGENESIS
SYNTHESIS & SECRETION TESTOSTERONE
STORAGE SPERM
EJACULAN & FUNCN SEXACCESSORY GLANDS
PUBERTY
GONADOTROPIN SECRETION OVER LIFE TIME
PULSATILE SECN
GnRH, FSH&LH
CLIMACTERIC